

REMARKS

By the foregoing amendment, Claims 1, 3, 5, 6, 8, 9, 13, 17, 18, 19, 20, 21, 23, 24, 25, 26, 31, and 34-36 have been amended, and Claims 4, 14, 15, 22, 32 and 33 have been cancelled. Favorable reconsideration of the application is respectfully requested.

The Examiner objected to the wording of the disclosure, and it is believed that with the foregoing amendments to the specification, the objections to the disclosure can be withdrawn.

Claims 1-5, 7 and 10-15 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., and Dekoning, et al. Claim 1 has been amended to recite “wherein the optical input/output connectors of the first and second mass storage modules are connected by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light.” The Examiner acknowledged that Leshem does not teach a module bypass circuit board including an optical input/output connector for outputting electrical signals from the module as light signals and for inputting light signals into the module as electrical signals.

Referring to Fig. 9, items 902 and 908, and column 13, lines 18-40, the Examiner cited Keaveny et al. as disclosing a circuit board including an optical input/output connector for outputting electrical signals from the module as light signals and for inputting light signals into the module as electrical signals. Swanson et al. was cited as disclosing an optical connector that is an optical transceiver which receives as input an

electrical signal in the form of high speed bit stream and outputs a modulated light signal and transforms the received light signal into an electrical serial bit stream. The Examiner argued that it would have been obvious to combine the system of Leshem with the system of Keaveny et al. that included a circuit board including an optical input/output connector for outputting electrical signals from the module as light signals and for inputting light signals into the module as electrical signals.

At column 13, lines 18-40, and referring to Fig. 9, Keaveny et al. discloses a FC/SCSI-bus multiplexer 902 with an FC port 904 and optical connectors 908 that can be connected to an FC network. Mass storage devices 910-913 are connected together and to the multiplexer via SCSI bus cables 914-916 to the SCSI ports 905-907, and the mass storage devices are not connected together by optical connectors. In contrast, Keaveny et al. teaches that when the FC/SCSI-bus multiplexer is connected to an FC network, the mass storage devices connected through SCSI buses can be accessed via the FC network by remote computer systems. At column 1, line 50, to column 2, line 19, Keaveny et al. discloses that the computer industry continues to use SCSI compatible mass storage devices, and Keaveny et al. is directed to a FC/SCSI multiplexer allowing for efficient flow of data between mass storage devices and remote computers as a way of partially alleviating this problem. It is therefore submitted that Keaveny et al. does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed. While Swanson et al. teaches an optical transceiver system, Swanson et al.

also does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed.

Dekoning et al. was cited as disclosing a controller providing a communication path between a CPU and storage devices through a storage device bypass circuit board. It is respectfully submitted that Dekoning et al. also does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed.

Espy was cited as teaching a controller providing a communication path between a CPU with storage devices through associate storage bypass circuit boards. It is respectfully submitted that Espy also does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed.

Claims 2-5, 7 and 10-15 depend from Claim 1. It is therefore respectfully submitted that Claims 1-5, 7 and 10-15 are novel and inventive over Leshem, Espy, Keaveny et al., Swanson et al., and Dekoning, et al., taken individually or together, and that the rejection of Claims 1-5, 7 and 10-15 on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., and Dekoning, et al. should be withdrawn.

Claims 6, 16, 19-24 and 28-34 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., Dekoning, et al. and Harvey. Regarding Claim 6, Harvey was cited as disclosing a module including a storage device bypass board connector for each of the storage device bypass circuit boards with an opening between each connector to permit air flow between the connectors for cooling purposes to prevent overheating of the drive and related hardware. Regarding Claim 16, Harvey was also cited as disclosing a module including a disk drive bypass circuit board connector for each of the disk drive bypass circuit boards, with an opening between each connector to permit flow of air between the connectors and alongside the bypass circuit boards and disk drives for cooling purposes. Claims 6 and 16 depend from Claim 1. It is respectfully submitted that Harvey does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed. It is therefore respectfully submitted that Claims 6 and 16 are novel and inventive over Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., Dekoning, et al. and Harvey.

Regarding Claim 19, Harvey was cited as disclosing a disk drive bypass circuit board associated with each disk drive and including a disk drive connector at one edge thereof and a bypass board connector at another edge thereof, with each disk drive being plugged into the disk drive connector on the disk drive bypass circuit board. Claim 19 also recites “wherein the optical input/output connectors of the first and second mass

storage modules are connected by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light.” It is respectfully submitted that Harvey does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed. It is therefore respectfully submitted that Claim 19, and Claims 20-24 and 28-34 that depend from Claim 19, are novel and inventive over Leshem, Espy, Dekoning, et al., and Harvey, taken individually or together. It is therefore respectfully submitted that the rejection of Claims 6, 16, 19-24 and 28-34 on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., Dekoning, et al. and Harvey, should be withdrawn.

Claims 8, 9, 17, 18, 25-27, 35 and 36 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., Dekoning, et al., Harvey and Kimura et al. Claims 8, 9, 17 and 18 depend from Claim 1. Kimura et al. was cited as teaching that each drive bypass circuit board is relatively flat. It is respectfully submitted that Kimura et al. also does not teach, disclose or suggest connecting optical input/output connectors of first and second mass storage modules by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light, as is claimed. It is therefore respectfully submitted that Claims 8, 9, 17 and 18 are novel

and inventive over Leshem, Espy, Keaveny et al., Swanson et al., Dekoning, et al., Harvey and Kimura et al.

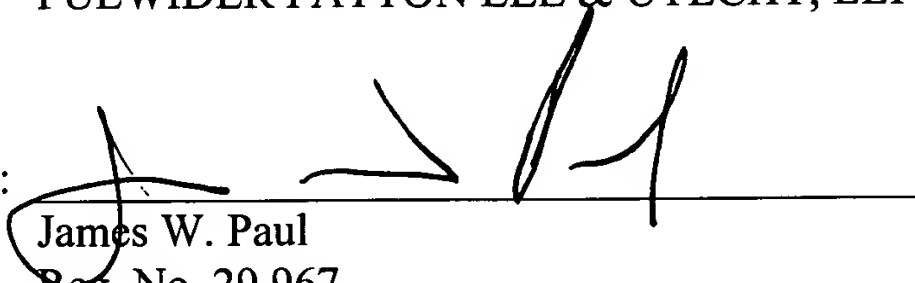
Claims 25-27, 35 and 36 depend from Claim 19, that recites “wherein the optical input/output connectors of the first and second mass storage modules are connected by a fiber optic transmission medium such that signals are communicated between the first and second mass storage modules in the form of light.” It is therefore respectfully submitted that Claims 25-27, 35 and 36 are novel and inventive over Leshem, Espy, Keaveny et al., Swanson et al., Dekoning, et al., Harvey and Kimura et al. It is therefore respectfully submitted that Claims 8, 9, 17, 18, 25-27, 35 and 36 are novel and inventive over Leshem, Espy, Keaveny et al., Swanson et al., Dekoning, et al., Harvey and Kimura et al., taken individually or together, and that the rejection of Claims 8, 9, 17, 18, 25-27, 35 and 36 on the grounds of obviousness from Leshem in view of Espy, and further in view of Keaveny et al., Swanson et al., Dekoning, et al., Harvey and Kimura et al. should be withdrawn.

In light of the foregoing amendment and remarks, it is respectfully submitted that the application should now be in condition for allowance, and an early favorable action in this regard is respectfully requested.

Respectfully submitted,

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